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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,558	06/17/2005	Yitzhak Hillman	HILLMAN1	9264
7590 Yitzhak Hillman Shderot Herzl 10A/B Jerusalem, 96105 ISRAEL				
08/04/2009				
EXAMINER				
KOSAR, ANDREW D				
ART UNIT		PAPER NUMBER		
1654				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,558

Applicant(s)

HILLMAN, YITZCHAK

Examiner

ANDREW D. KOSAR

Art Unit

1654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 100-108 and 113-125 is/are pending in the application.
- 4a) Of the above claim(s) 100-108 and 118-121 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 113-117 and 122-125 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments/Arguments

Applicant's amendments and arguments filed February 2, 2009 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below in original or modified form is herein withdrawn.

Applicant's arguments are generally narrative and discuss elements of the subject matter not currently under examination and elements beyond that of which forms the grounds of rejection. Applicant's future remarks/traversal should be limited to that which the rejections are directed. Applicant's arguments with respect to the utility and enablement rejections have been considered but are moot in view of the new ground(s) of rejection.

Claims 100-108 and 118-121 remain withdrawn for the reasons of record. Claims 113-117 and 122-125 have been examined on the merits.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 113-117 and 122-125 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The instant claims, as evidenced by claim 114, embrace treatment where the AMP/AML is "by expressing said AMP and/or AMP-like molecule in the subject." AMPs and AMLs are naturally occurring in the body, and naturally expressed. Therefore, the claims embrace subject matter that is non-statutory because it is a process that occurs in nature.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 113, 114, 117, 122 and 123 are rejected under 35 U.S.C. 102(b) as being anticipated by HANCOCK (US Patent 6,288,212 B1).

Hancock teaches treating various conditions, including arthritis, with antimicrobial peptides (e.g. column 14, lines 42-67).

Claims 113-117 and 122, 124 and 125 are rejected under 35 U.S.C. 102(e) as being anticipated by GALLO (US 2006/0292551 A1).

Gallo teaches treating atopic dermatitis with cationic antiviral peptides (e.g. claim 20), such as LL-37 (e.g. claim 21, identified as SEQ ID NO:1).

It should be noted that Gallo is properly applied as prior art, as the instant foreign priority document filed in Israel (153557) on December 19, 2002 fails to provide support for the subject matter claimed. 153557 provides for treating/preventing diseases (e.g. claim 1 and 16), including dermatitis (e.g. claim 16) with blocking agents of antimicrobial peptides (e.g. claim 4). The context of the priority document is such that inhibition of the AMPs/AMLs is how one treats diseases such as dermatitis. The document does not provide, within the meaning of 35 USC 112, 1st ¶, descriptive support for the now-claimed subject matter. Further, foreign priority document 156980 provides the same teachings that blocking agents are necessary to treat such diseases

(e.g. claims 1, 3, 4, 20 and page 13 "In this patent, antagonists or blockers for antimicrobial peptides includes blockers or antagonists for all or any one combination of all antimicrobial peptides including the following:..."). Further, 156980 provides that diseases such as dermatitis are triggered by AMPs (e.g. page 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 113-117 and 122-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over HANCOCK, above, in view of GALLO, above.

The teachings of Hancock and Gallo are presented above. While Hancock teaches treating various conditions, including arthritis, with antimicrobial peptides (e.g. column 14, lines 42-67), Hancock does not teach using LL-37. It would have been obvious to have used LL-37 in the methods of Hancock, as Hancock teaches that any antimicrobial peptide can be used in the method. One would have been motivated to have used any antimicrobial peptide, including LL-37, as Hancock teaches any antimicrobial peptide can be used. One would reasonably expect LL-37 to work in the method, as it is within the genus of antimicrobial peptides disclosed by Hancock that are taught to be effect for the treatments disclosed therein.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the foregoing discussion, the Examiner concludes that the subject matter defined by the instant

claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 113-117 and 122-125 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 12/173,344.

Although the conflicting claims are not identical, they are not patentably distinct from each other. In the instant case, ‘344 is a CIP of the instant case and embraces/claims methods of overlapping, if not commensurate, scope, such that the methods of ‘344 anticipate the instant

claims. For example, '344 is drawn to treating medical conditions, e.g. arthritis (claim 7) with antimicrobial peptides, e.g. LL-37 (e.g. claim 4). This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW D. KOSAR whose telephone number is (571)272-0913. The examiner can normally be reached on Monday - Friday 08:00 - 16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia J. Tsang can be reached on (571)272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew D Kosar/
Primary Examiner, Art Unit 1654